DOCUMENT RESUME

ED 185 788 EC 124 085

AUTHOR Friedl, Michael: And Others
TITLE Increasing the Attending Behaviors of a Multi-Handicapped Learner Through the Functional Movement Training.
PUB DATE [77]
NOTE 11p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; *Attention; *Behavior Modification; Case Studies; Exceptional Child Research; *Movement Education; *Multiple Disabilities; Program Effectiveness; *Reinforcement; *Severe Mental Retardation; Training Methods

ABSTRACT

The study investigated the effects of the overcorrection procedure of functional movement training (in which praise and physical contact are offered for correct positions) on establishing and maintaining the visual attending of a multihandicapped, profoundly retarded learner (20 years old) in a public school program. The effectiveness of positive reinforcement was contrasted with the effectiveness of positive reinforcement plus functional movement training. The learner was required to maintain eye contact and visually attend for a specific period of time, for each condition of the study. However, in the positive reinforcement plus functional movement training condition, functional movement training was used as an additional consequence for incorrect responses to the verbal cue, "Look at me." The results indicated that reinforcement alone was less effective than positive reinforcement plus functional movement training in increasing the attending behaviors of a multihandicapped learner. (Author/SBH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED185788

INCREASING THE ATTENDING BEHAVIORS OF A MULTI-HANDICAPPED LEARNER THROUGH THE FUNCTIONAL MOVEMENT TRAINING

Michael Friedl

Martha Tucker

Jackson County Education Service District
Medford, Oregon

and

Diane Geary

Burlington School District
Burlington, Vermont

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Michael Friedl

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC 134185

ABSTRACT

This study investigated the effects of the overcorrection procedure of functional movement training on establishing and maintaining the visual attending of a multi-handicapped learner in a public school program. The effectiveness of positive reinforcement was contrasted with the effectiveness of positive reinforcement plus functional movement training. The learner was required to maintain eye contact and visually attend for a specific period of time, for each condition of the study. However in the positive reinforcement plus functional movement training condition, functional movement training was used as an additional consequence for incorrect responses to the verbal cue, "Look at me." The results indicated that reinforcement alone was less effective than positive reinforcement plus functional movement training in increasing the attending behaviors of a multi-handicapped learner.

An initial step in instructional programs for multi-handicapped learners is to establish attending behaviors, such as eye contact, visual attending to the task, and tracking behaviors (Risley and Wolf, 1967; Kent, Klein, Falk, Guenther, 1972). Bateman (1971) and Kent (1974) point out that teaching learners to attend to the task is a first step in every instructional program. Foxx (1977) states that during visual attending training, the learner is usually given food and praise for either looking at the educator on command or for spontaneous eye contact. Many investigators (Larsen and Bricker, 1968; Bricker, Dennison, and Bricker, 1975; and Harris, Whitman, Zakaris, and Chardo, 1971) have used this basic procedure to establish visual attending.

Although a variety of studies (Risley and Wolf, 1967; Whitman, et. al., 1971) have demonstrated that the use of food and social praise can effectively establish visual attending among multi-handicapped learners, some learners are not consistently responsive to food and social praise. No effective reinforcer has been found, and, therefore, these learners do no really benefit from the training program. To accommodate for this problem, Foxx (1977) used positive reinforcement plus overcorrection procedure to increase eye contact with one autistic and two severely retarded children who inconsistently performed to earn edible and social rewards. Newmann, Whorton, and Simpson (1977) observed that overcorrection procedures have not been routinely applied in public school settings by basic educational staff. Most reported programs have been applied in residential settings in efforts that have been implemented by highly trained research personnel.

The present study was designed to investigate the effects of the overcorrection procedures for functional movement training (Foxx and Azrin, 1973; Foxx, 1977) on establishing and maintaining the visual attending of a multi-handicapped learner in a public school setting. The overcorrection procedure of functional movement training was selected because it appeared to be a humane method of decelerating undesirable behaviors. Research has suggested that overcorrection, like other punishment procedures, has maximum decleration effects when used in conjunction with techniques directed at developing appropriate behaviors (cf. Ward, 1976). In this study, attending behaviors were reinforced and nonattending behaviors were consequated with functional movement training.

Method

Participant

Sue was 20 years old and had been classified as profoundly retarded. She was enrolled in a self-contained classroom for multi-handicapped adolescents in a public school setting. The learner was nonambulatory but could locomote independently through the use of a wheelchair. Her major problem in training sessions was her noncompliance to verbal instructions and her erratic attending behaviors. The classroom personnel were very concerned about her inconsistent visual attending. That is, she would inconsistently attend and respond to edibles and social praise.

Her poor attending behavior was impeding her progress in instructional programs.

Setting

Visual attending training was conducted behind two portable partitions that isolated the learner and the teacher from the rest of the class. The instructional area contained materials necessary for the "Show me (food)" program (i.e., picture of food, spoon, dish of bananas). Each morning the learner was brought into the isolated area and seated directly in front of the teacher. A lap board was fastened to the learner's wheelchair.

Behavioral Definitions

The purpose of training was to increase eye contact and decrease the frequency of inattentive behaviors. The target behaviors are defined below.

Eye Contact: This behavior is defined as when given the cue, "Sue, look at me," she established eye contact within 3 seconds. That is, the learner's eyes focused directly upon the teacher with her head in an upright position.

Inattentive Behavior: This behavior is defined as when given a verbal cue, "Sue, look at me," she did not establish eye contact within 3 seconds or did not have her head in an upright position. Sue demonstrated two types of inattentive behaviors: 1) Head to Side Responses - These responses included the learner leaning her head to either her right or left side and resting it on her shoulder when provided the cue, "Sue, look at me,"; and 2) Chin on Chest Responses - This behavior is defined as the learner lowering her head such that the chin made contact with her chest when provided the cue, "Sue, look at me."

Intervention Procedures

Two intervention procedures were used: 1) reinforcement of correct responding; and 2) reinforcement plus functional movement training.

Reinforcement of Correct Responding: During the reinforcement of correct-responding condition, the teacher and learner were seated facing each other. The teacher would say the learner's name and give the verbal prompt, "Sue, look at me." If the learner made eye contact within 3 seconds, she was given social praise and physical contact (e.g., pat on the hand). If there was no response within 3 seconds, the therapist would again present the verbal cue and use a gesture to attract the learner's attention to her/his fact or stimulus materials. If the learner did not responde within 3 seconds, the teacher physically held or turned the learner toward the task, repeated the verbal cue, and waited for eye contact. A maximum of 20 verbal prompts were given per session.

Functional Movement Training: During functional movement training conditions, the teacher praised and provided physical contact for correct responses. However, the teacher used functional movement training if the learner emitted head to side responses or chin to chest responses. When this type of behavior occurred, the teacher said, "No, Sue. No head to side," or "Sue, no chin down" in a stern voice, and then began the functional movement training. The learner was required to move her head either up, down, or straight ahead, and verbal directions paired with physical assistance were given for each position. The teacher stood behind the learner, who remained seated in her wheelchair throughout the functional movement training. The learner was required to remain in each directed position for a period of 15 seconds. The positions were randomly assigned so that the learner would attend to the verbal directions, rather than concentrating on a particular response sequence. The functional movement training lasted for two minutes. At the end of this period, the teacher resumed a new eye contact trial.

Experimental Design

An A - B design was used. The A condition consisted of reinforcement for correct responses, and the B condition consisted of functional movement training. This design allowed the effects of positive reinforcement and positive reinforcement plus functional movement training to be contrasted.

Recording and Reliability

During each training session, the learner was given ten trials. The number of correct (eye contact) and incorrect (inattentive behaviors) responses was recorded by the teacher during each session. On three days (3, 14, and 39), a second observer independently recorded the learner's number of correct and incorrect responses. Agreement between the two observers was found by dividing the lesser frequency by the greater frequency and multiplying by 100, which yielded 100 percent observer agreement for each of the three days.

Results

As depicted in Figure 1, during reinforcement of correct responses condition, the teacher observed a consistent increase in the number of inattentive behaviors. Under conditions of functional movement training, the number of inattentive behaviors decreased.

Discussion

Although the learner's inattentive behaviors were markedly decreased during functional movement training as represented in Figure 1, the study

had two limitations. An A-B design was used which does not verify the fact that functional movement training was totally responsible for deceleration of the learner's inattentive behaviors. Also, the instructional setting used one to one instruction. This enabled the teacher to immediately consequate inattentive behaviors. However, this characteristic may limit the effectiveness of the procedure in a setting which requires the teacher to attend to other learners in addition to the one participating in the program.

The results of this study suggest that overcorrection (functional movement training), in addition to praise and physical contact for correct responses, constitutes an effective approach for decelerating the frequency of inattentive behaviors. The results also demonstrates, in accordance with observation by Newmann, et. al. (1977), that functional movement training can effectively be applied to a multi-handicapped learner by a classroom teacher in a public school setting. The functional movement training used in this study was applicable to the situation only because a variety of positive reinforcement procedures had not proved effective. It not only brought about a marked decrease in the frequency of the learner's inattentive behaviors, but it established attentive, correct responding through increasing the frequency of eye contact during the training sessions. Azrin and Holz (1966) state that a more lasting reduction of a behavior can be obtained when the individual is simultaneously given access to an alternative reinforceable behavior.

Generalization training of attending behaviors was initiated as soon as the study indicated that the learner was responding to the functional movement training. Throughout the day, whenever the learner was participating in a specific training program, eye contact was required before the program could begin. The teacher would sit directly in front of the learner and deliver the same verbal cue. The same criterion level of eye contact (within three seconds), positive consequences for a correct response, functional movement training (duration two minutes) were used. The learner reached criterion level for eye contact, 90% per session, within two weeks in each of various training sessions. Eventually, social praise and physical contact were given intermittently.

X reliability checks

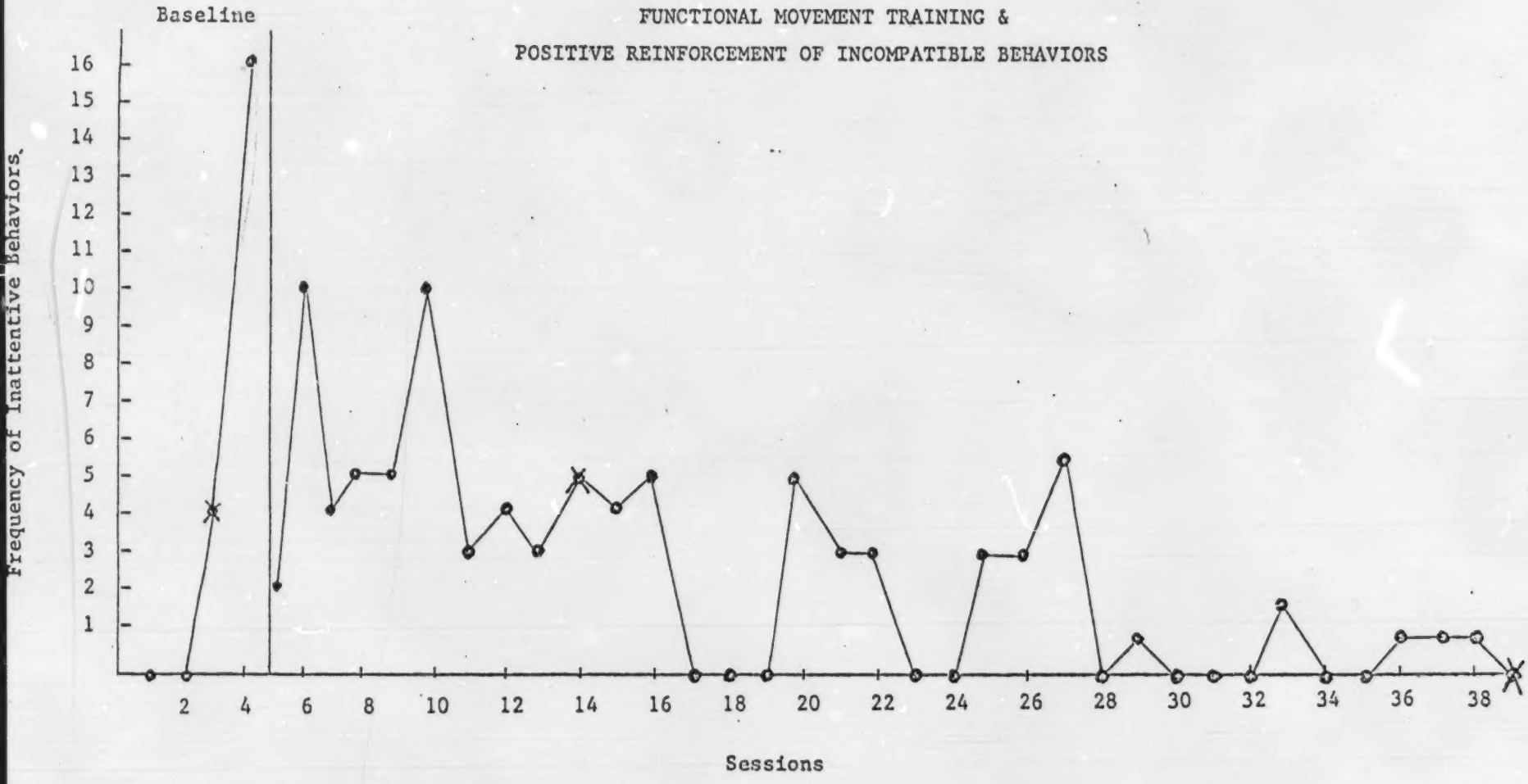

FIGURE 1 THE EFFECT OF FUNCTIONAL MOVEMENT TRAINING AND POSITIVE REINFORCEMENT ON INATTENTIVE BEHAVIORS

References

Baer, D. M., Peterson, R. F., & Sherman, J. A. The development of imitation by reinforcing behavioral similarity to a model. Journal of Experimental Analysis of Behavior, 1967, 10, 405-416.

Bateman, B. D. The essentials of teaching. San Rafael, California: Dimensions Publishing Company, 1971.

Bricker, W. A., & Bricker, D. D. A program of language training for the severely handicapped child. Exceptional Children, 1970, 37, 101-111.

Bricker, D., Dennison, L., & Bricker, W. Constructive interaction: Adaptation approach to language training. Miami, Florida: Mailman Center for Child Development. Monograph Series, 1975, 1.

Foxx, R. M. Attention training: The use of overcorrection to increase the eye contact of autistic and retarded children. Journal of Applied Behavior Analysis, 1977, 10, 489-499.

Foxx, R. M., and Azrin, N. H. The elimination of autistic self-stimulatory behavior by overcorrection. Journal of Applied Behavior Analysis, 1973, 6, 1-14.

Harris, S. L. Teaching speech to a non-verbal child. Lawrence, Kansas: H & H Enterprises, 1976.

Kent, L. R. Language acquisition program forthe retarded and multiply impaired. Champaign, Illinois: Research Press, 1974.

Kent, L. R., Klein, D., Folk, A., and Guenther, H. A language acquisition program for the retarded. In J. E. McLean, D. E. Yoder, & R. L. Schiefelbusch (Eds.) Language intervention with the retarded. Baltimore, Maryland: University Park Press, 1972.

Kissel, R. C., & Whitman, T. L. An examination of the direct and generalized effects of a play training and overcorrection procedure upon the self-stimulatory behavior of a profoundly retarded boy. AAESPH Review, September, 1977.

Larsen, L. A., & Bricker, W. A. A manual for parents and teachers of severely and moderately retarded children. IMRID Papers and Reports, 1968, 5 (22).

Newman, R., Whorton, D., & Simpson, R. The modification of self-stimulatory verbalizations in an autistic child through the use of an overcorrection procedure. AAESPH Review, September, 1977.

Risley, T., Hart, B., & Doke, L. Operant language development: The outline of a therapeutic technology. In R. L. Schiefelbusch (Ed.) Language of the mentally retarded. Baltimore, Maryland: University Park Press, 1972.

Risley, T., & Wolf, M. Establishing functional speech in echolalic children. In H. N. Sloan & B. D. MacAulay (Eds.) Operant procedures in remedial speech and language training. Boston: Houghton Mifflin, 1968.

Striefel, S. Teaching a child to imitate. Lawrence, Kansas: H & H Enterprises, 1974.

Ward, E. M. Overcorrection: A component analysis of its effects on inappropriate and appropriate behavior among retarded children and adults. Paper presented at the Midwestern Association of Behavior Analysis, Chicago, May, 1976.

Whitman, T. L., Zakaras, M., & Chardos, S. Effects of reinforcement and guidance procedures on instruction-following behavior of severely retarded children. Journal of Applied Behavior Analysis, 1971, 4, 283-290.

Williams, W., & Fox, T. (Eds.) Minimum objective system for pupils with severe handicaps. Burlington, Vermont: Center for Special Education, University of Vermont, 1977.